PATENT COOPERATION TREATY

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

To:

Commissioner
US Department of Commerce
United States Patent and Trademark
Office, PCT
2011 South Clark Place Room
CP2/5C24
Arlington, VA 22202
ETATS-UNIS D'AMERIQUE

in its capacity as elected Office

Date of mailing (day/month/year) 07 May 2001 (07.05.01)	
International application No. PCT/US00/18505	**Applicant's or agent's file reference** PF-0715 PCT
International filing date (day/month/year) 06 July 2000 (06.07.00)	**Priority date** (day/month/year) 06 July 1999 (06.07.99)
Applicant TANG, Y., Tom et al	

1. The designated Office is hereby notified of its election made:

[X] in the demand filed with the International Preliminary Examining Authority on:

23 January 2001 (23.01.01)

[ ] in a notice effecting later election filed with the International Bureau on:

2. The election [X] was

[ ] was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO **34, chemin des Colombettes** **1211 Geneva 20, Switzerland**	Authorized officer Marie-José Devillard
Facsimile No.: (41-22) 740.14.35	Telephone No.: (41-22) 338.83.38

USA

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference	FOR FURTHER ACTION	see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.
PF-0715 PCT		
International application No.	International filing date *(day/month/year)*	(Earliest) Priority Date *(day/month/year)*
PCT/US 00/ 18505	06/07/2000	06/07/1999
Applicant		
INCYTE GENOMICS, INC. et al.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 6 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language,** the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☒ contained in the international application in written form.

☒ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readble form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☒ **Certain claims were found unsearchable** (See Box I).

3. ☒ **Unity of invention is lacking** (see Box II).

4. With regard to the **title,**

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract,**

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No. -

☐ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

☐ None of the figures.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 00/18505

Box I Obs rvations where certain claims were found unsearchabl (Continuation f it m 1 f first sh t)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. [X] Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

Although claim 18 is directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.

2. [X] Claims Nos.: 20,21,23,24
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

see FURTHER INFORMATION sheet PCT/ISA/210

3. [ ] Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. [ ] As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. [ ] As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. [ ] As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. [X] No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Claims in part: 1-19, 22, 25- 28 ; all as far as applicable.

Remark on Protest

[ ] The additional search fees were accompanied by the applicant's protest.

[ ] No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 20,21,23,24

Claims 20 and 23 refer to a pharmaceutical composition comprising an agonist/antagonist without giving a true technical characterization. Moreover, no such specific compounds are defined in the application. In consequence, the scope of said claims is ambiguous and vague, and its subject-matter is not sufficinetly disclosed and suported (Art. 5 and 6 PCT).
No meanigful search can be carried out for such purely speculative claims whose wording is, in fact, a mere recitation of the result to be achieved.
The above comment also applies to claims 21 and 24.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: Invention 1; Claims in part:1-19,22, 25-28; all as far as applicable

Polypeptide relating to SEQ ID NO 1, antibody binding with said polypeptide, pharmaceutical composition comprising said polypeptide, polynucleotide relating to SEQ ID NO 11, cell transformed with said polynucleotide, transgenic organism comprising said polynucleotide, method for detecting a target polynucleotide having a sequence relating to SEQ ID NO 11, methods for screening referring either to a polypeptide relating to SEQ ID NO 1 or a polynucleotide relating to SEQ ID NO 11

Inventions 2-9, Claims in part: 1-19,22,25-28; all as far as applicable

as invention 1 but limited to subject-matter relating to SEQ ID NOs 2,3,5-10 or SEQ ID NOs 12,13,15-20;
wherein invention 2 is limited to SEQ ID NOs 2 and 12,
wherein invention 3 is limited to SEQ ID NOs 3 and 13, etc.,
and invention 9 is limited to SEQ ID NOs 10 and 20.

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 00/18505

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C12N15/12 C07K14/47 A01K67/027 C07K16/18 C12Q1/68
A61K38/17 G01N33/50

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C12N C07K A01K C12Q A61K G01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EMBL, EPO-Internal, STRAND, BIOSIS

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	NAGASE T ET AL: "PREDICTION OF THE CODING SEQUENCES OF UNIDENTIFIED HUMAN GENES.17. THE COMPLETE SEQUENCES OF 100 NEW CDNA CLONES FROM BRAIN WHICH CODEFOR LARGE PROTEINS IN VITRO" DNA RESEARCH,UNIVERSAL ACADEMY PRESS,JP, vol. 7, 2000, pages 143-150, XP000943428 ISSN: 1340-2838 abstract	1,3,6,7, 11,12
X	-& DATABASE SWALL [Online] EMBL; accession number 094936, 1 May 1999 (1999-05-01) NAGASE T ET AL: "KIAA0853 protein (fragment)" XP002154944 amino acid sequence	1,3,6,7
X	-& DATABASE EMBL [Online] EMBL;	11,12

-/--

[X] Further documents are listed in the continuation of box C.

[ ] Patent family members are listed in annex.

° Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
8 December 2000	21.03.01

Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	ESPEN, J

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Form PCT/ISA/210 (second sheet) (July 1992)

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
	accession number AB020660, 9 February 1999 (1999-02-09) NAGASE T ET AL: "Homo sapiens mRNA for KIAA0853, partial cds" XP002154945 nucleotide sequence ---	
X	DATABASE EMBL [Online] EMBL; accession number G36468, 7 January 1998 (1998-01-07) STANFORD HUMAN GENOME CENTER: "SHGC-53446 Homo sapiens STS cDNA" XP002154859 nucleotide sequence ---	11,12
X	DATABASE EMBL [Online] EMBL; accession number AI672497, 19 May 1999 (1999-05-19) NATIONAL CANCER INSTITUTE, CANCER GENOME ANATOMY PROJECT (CGAP): "Homo sapiens cDNA clone" XP002154860 nucleotide sequence ---	11,12
A	OSBORNE A: "Retinoblastoma protein expression facilitates chromatin remodeling at the HLA-DRA promoter" NUCLEIC ACIDS RESEARCH, vol. 25, no. 24, 1997, pages 5095-5102, XP002154858 OXFORD GB -----	

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PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

12

Applicant's or agent's file reference PF-0715 PCT	**FOR FURTHER ACTION**	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/US00/18505	International filing date *(day/month/year)* 06 July 2000 (06.07.2000)	Priority date *(day/month/year)* 06 July 1999 (06.07.1999)
International Patent Classification (IPC) or national classification and IPC IPC(7): A61K 31/00 and US Cl.: 514/1, 885		
Applicant INCYTE GENOMICS, INC.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 6 sheets, including this cover sheet.

   ☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

   These annexes consist of a total of 0 sheets.

3. This report contains indications relating to the following items:

   - I ☒ Basis of the report
   - II ☐ Priority
   - III ☒ Non-establishment of report with regard to novelty, inventive step and industrial applicability
   - IV ☒ Lack of unity of invention
   - V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
   - VI ☐ Certain documents cited
   - VII ☐ Certain defects in the international application
   - VIII ☒ Certain observations on the international application

Date of submission of the demand	Date of completion of this report
23 January 2001 (23.01.2001)	22 October 2001 (22.10.2001)
Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703)305-3230	Authorized officer Jessica H. Roark Telephone No. (703) 308-0196

Form PCT/IPEA/409 (cover sheet)(July 1998)

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/US00/18505

I. Basis of the report

1. With regard to the **elements** of the international application:*

☒ the international application as originally filed.

☒ the description:
pages 1-73 as originally filed
pages NONE , filed with the demand
pages NONE , filed with the letter of _____.

☒ the claims:
pages 74-78 , as originally filed
pages NONE , as amended (together with any statement) under Article 19
pages NONE , filed with the demand
pages NONE , filed with the letter of _____.

☐ the drawings:
pages NONE , as originally filed
pages NONE , filed with the demand
pages NONE , filed with the letter of _____.

☒ the sequence listing part of the description:
pages 1-16 , as originally filed
pages NONE , filed with the demand
pages NONE , filed with the letter of _____.

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.
These elements were available or furnished to this Authority in the following language _____ which is:

☐ the language of a translation furnished for the purposes of international search (under Rule23.1(b)).

☐ the language of publication of the international application (under Rule 48.3(b)).

☐ the language of the translation furnished for the purposes of international preliminary examination(under Rules 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

☒ contained in the international application in printed form.

☒ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages NONE

☐ the claims, Nos. NONE

☐ the drawings, sheets/~~fig~~ NONE

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

** Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).*

*** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.*

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/US00/18505

III. Non-establishment f pinion with regard t novelty, inventive step and industrial applicability

1. The question whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been and will not be examined in respect of:

☐ the entire international application,

☒ claims Nos. 1-19 in part, 20,21,22 in part, 23, 24 and 25-28 in part

because:

☐ the said international application, or the said claim Nos. ____ relate to the following subject matter which does not require international preliminary examination *(specify)*:

☐ the description, claims or drawings *(indicate particular elements below)* or said claims Nos. ____ are so unclear that no meaningful opinion could be formed *(specify)*:

☐ the claims, or said claims Nos. ____ are so inadequately supported by the description that no meaningful opinion could be formed.

☒ no international search report has been established for said claims Nos. 1-19 in part, 20, 21, 22 in part, 23, 24 and 25-28 in part

2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:

☐ the written form has not been furnished or does not comply with the standard.

☐ the computer readable form has not been furnished or does not comply with the standard.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/US00/18505

IV. Lack f unity of invention

1. In response to the invitation to restrict or pay additional fees the applicant has:

☐ restricted the claims.

☐ paid additional fees.

☐ paid additional fees under protest.

☐ neither restricted nor paid additional fees.

2. ☒ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.

3. This Authority considers that the requirement of unity of invention is accordance with Rules 13.1, 13.2 and 13.3 is

☐ complied with.

☒ not complied with for the following reasons:

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

Group I, claims 1-2 and 16-17, drawn to a polypeptide comprising SEQ ID NO:1 and pharmaceutical compositions thereof.
Group II, claims 3-7, 9, and 11-12, drawn to a polynucleotide comprising SEQ ID NO:11 and encoding SEQ ID NO:1, fragments of SEQ ID NO:11, cells transformed with SEQ ID NO:11, and method of expressing the polypeptide of SEQ ID NO:1.
Group III, claim 8, drawn to a transgenic organism comprising SEQ ID NO:11.
Group IV, claim 10, drawn to an antibody to the polypeptide of SEQ ID NO:1.
Group V, claims 13-15, drawn to methods of detecting the polynucleotide of SEQ ID NO:11.
Group VI, claim 18, drawn to a method of treating a disease associated with decreased expression of the polypeptide of SEQ ID NO:1 by administering the polypeptide of SEQ ID NO:1.
Group VII, claims 19, 22 and 25-26, drawn to a method of screening for agonists, antagonists, and ligands of the polypeptide of SEQ ID NO:1.
Group VIII, claim 27, drawn to a method of screening for a compound that alters expression of the polynucleotide of SEQ ID NO:11.

The inventions listed as Groups I-VIII do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The technical feature shared by Groups I-VIII is considered to be the polypeptide of SEQ ID NO:1, which was not found to define a contribution over the prior art of GenBank Accession No. AB020660. Therefore unity of invention is lacking.

4. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this report:

☐ all parts.

☒ the parts relating to claims Nos. 1-19, 22, 25-28 (limited to SEQ ID NOS 1 and 11)

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/US00/18505

V. Reasoned statement under Rule 66.2(a)(ii) with regard t n velty, inventive step r industrial applicability; citati ns and explanations supp rting such statement

1. STATEMENT

Novelty (N)	Claims	5, 7-10, 13-19, 22, 25-27	YES
	Claims	1-4, 6 and 11-12	NO
Inventive Step (IS)	Claims	NONE	YES
	Claims	1-19, 22, 25-28	NO
Industrial Applicability (IA)	Claims	NONE	YES
	Claims	1-19, 22, 25-28	NO

2. CITATIONS AND EXPLANATIONS

1. Claims 1-4, 6 and 11-12 lack novelty under PCT Article 33(2) as being anticipated by EMBL Accession No. AB020660.

The polypeptide presented in AB020660 encompasses the polypeptide of SEQ ID NO:1 (see polypeptide sequence). Likewise, the cDNA provided in AB020660 encodes a polypeptide of SEQ ID NO:1. A recombinant polynucleotide is taught (clone hk06136). The polynucleotide taught in AB020660 at least meets the limitation of having at least 70% sequence identity to SEQ ID NO:1, especially since no requirement is given of identity over what length. In addition, the polynucleotide of AB020660 comprises at least 60 contiguous nucleotides of SEQ ID NO:11.

2. Claims 1-19, 22, and 25-28 lack an inventive step under PCT Article 33(3) as being obvious over EMBL Accession No. AB020660.

EMBL Accession No. AB020660 teaches the polypeptide of SEQ ID NO:1, and the polynucleotide encoding SEQ ID NO:1 as discussed supra. Armed with this information, the ordinary artisan would have been motivated to produce antibodies to the polypeptide, utilize the polynucleotide encoding the polypeptide to make transgenic organisms, and employ the additional methods recited in order to define the biological activity of the polypeptide of SEQ ID NO:1.

3. Claims 1-19, 22, and 25-28 lack industrial applicability as defined by PCT Article 33(4).

Although the disclosure indicates in Table 2 that matrin cyclophilin is a homologous sequence for SEQ ID NO:1, there does not appear to be a sufficient indication that SEQ ID NO:1 has a similar functional activity. In addition, although Table 3 provides some correlation of expression of the polynucleotide of SEQ ID NO:11 with the tissue groups of reproductive, nervous, gastrointestinal, and hematopoietic/immune and further that in the diseases/conditions of cancer, cell proliferation, and inflammation, there does not appear to be sufficient indication that either the polynucleotide of SEQ ID NO:11 or the polypeptide of SEQ ID NO:1 is associated with a specific disease or disorder. Therefore, there does not appear to be an industrial use for the polynucleotide, polypeptide, antibodies to the polypeptide, transgenic organisms comprising the polynucleotide, or methods employing these products.

VIII. Certain bservati ns n the international applicati n

The following observations on the clarity of the claims, description, and drawings or on the questions whether the claims are fully supported by the description, are made:

The International Preliminary Examination has been carried out based only upon the information provided in the International Search Report.

INTERNATIONAL SEARCH REPORT

Intern nal Application No
PCT/US 00/18505

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C12N15/12 C07K14/47 A01K67/027 C07K16/18 C12Q1/68
A61K38/17 G01N33/50

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C12N C07K A01K C12Q A61K G01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EMBL, EPO-Internal, STRAND, BIOSIS

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	NAGASE T ET AL: "PREDICTION OF THE CODING SEQUENCES OF UNIDENTIFIED HUMAN GENES.17. THE COMPLETE SEQUENCES OF 100 NEW CDNA CLONES FROM BRAIN WHICH CODEFOR LARGE PROTEINS IN VITRO" DNA RESEARCH,UNIVERSAL ACADEMY PRESS,JP, vol. 7, 2000, pages 143-150, XP000943428 ISSN: 1340-2838 abstract	1,3,6,7, 11,12
X	-& DATABASE SWALL [Online] EMBL; accession number 094936, 1 May 1999 (1999-05-01) NAGASE T ET AL: "KIAA0853 protein (fragment)" XP002154944 amino acid sequence	1,3,6,7
X	-& DATABASE EMBL [Online] EMBL;	11,12

-/--

[X] Further documents are listed in the continuation of box C. [ ] Patent family members are listed in annex.

° Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier document but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
"&" document member of the same patent family

Date of the actual completion of the international search
8 December 2000

Date of mailing of the international search report
21.03.01

Name and mailing address of the ISA
European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer
ESPEN, J

Form PCT/ISA/210 (second sheet) (July 1992)

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
	accession number AB020660, 9 February 1999 (1999-02-09) NAGASE T ET AL: "Homo sapiens mRNA for KIAA0853, partial cds" XP002154945 nucleotide sequence ---	
X	DATABASE EMBL [Online] EMBL; accession number G36468, 7 January 1998 (1998-01-07) STANFORD HUMAN GENOME CENTER: "SHGC-53446 Homo sapiens STS cDNA" XP002154859 nucleotide sequence ---	11,12
X	DATABASE EMBL [Online] EMBL; accession number AI672497, 19 May 1999 (1999-05-19) NATIONAL CANCER INSTITUTE, CANCER GENOME ANATOMY PROJECT (CGAP): "Homo sapiens cDNA clone" XP002154860 nucleotide sequence ---	11,12
A	OSBORNE A: "Retinoblastoma protein expression facilitates chromatin remodeling at the HLA-DRA promoter" NUCLEIC ACIDS RESEARCH, vol. 25, no. 24, 1997, pages 5095-5102, XP002154858 OXFORD GB -----	

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 00/18505

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. [X] Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

Although claim 18 is directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.

2. [X] Claims Nos.: 20,21,23,24
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

see FURTHER INFORMATION sheet PCT/ISA/210

3. [ ] Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. [ ] As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. [ ] As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. [ ] As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. [X] No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Claims in part: 1-19, 22, 25- 28 ; all as far as applicable.

Remark on Protest

[ ] The additional search fees were accompanied by the applicant's protest.

[ ] No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 20,21,23,24

Claims 20 and 23 refer to a pharmaceutical composition comprising an agonist/antagonist without giving a true technical characterization. Moreover, no such specific compounds are defined in the application. In consequence, the scope of said claims is ambiguous and vague, and its subject-matter is not sufficinetly disclosed and suported (Art. 5 and 6 PCT).
No meanigful search can be carried out for such purely speculative claims whose wording is, in fact, a mere recitation of the result to be achieved.
The above comment also applies to claims 21 and 24.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: Invention 1; Claims in part:1-19,22, 25-28; all as far as applicable

Polypeptide relating to SEQ ID NO 1, antibody binding with said polypeptide, pharmaceutical composition comprising said polypeptide, polynucleotide relating to SEQ ID NO 11, cell transformed with said polynucleotide, transgenic organism comprising said polynucleotide, method for detecting a target polynucleotide having a sequence relating to SEQ ID NO 11, methods for screening referring either to a polypeptide relating to SEQ ID NO 1 or a polynucleotide relating to SEQ ID NO 11

Inventions 2-9, Claims in part: 1-19,22,25-28; all as far as applicable

as invention 1 but limited to subject-matter relating to SEQ ID NOs 2,3,5-10 or SEQ ID NOs 12,13,15-20;
wherein invention 2 is limited to SEQ ID NOs 2 and 12,
wherein invention 3 is limited to SEQ ID NOs 3 and 13, etc.,
and invention 9 is limited to SEQ ID NOs 10 and 20.

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

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(54) Title: HUMAN IMMUNE RESPONSE MOLECULES

(57) Abstract: The invention provides human immune response molecules (IMUN) and polynucleotides which identify and encode IMUN. The invention also provides expression vectors, host cells, antibodies, agonists, and antagonists. The invention also provides methods for diagnosing, treating, or preventing disorders associated with expression of IMUN.